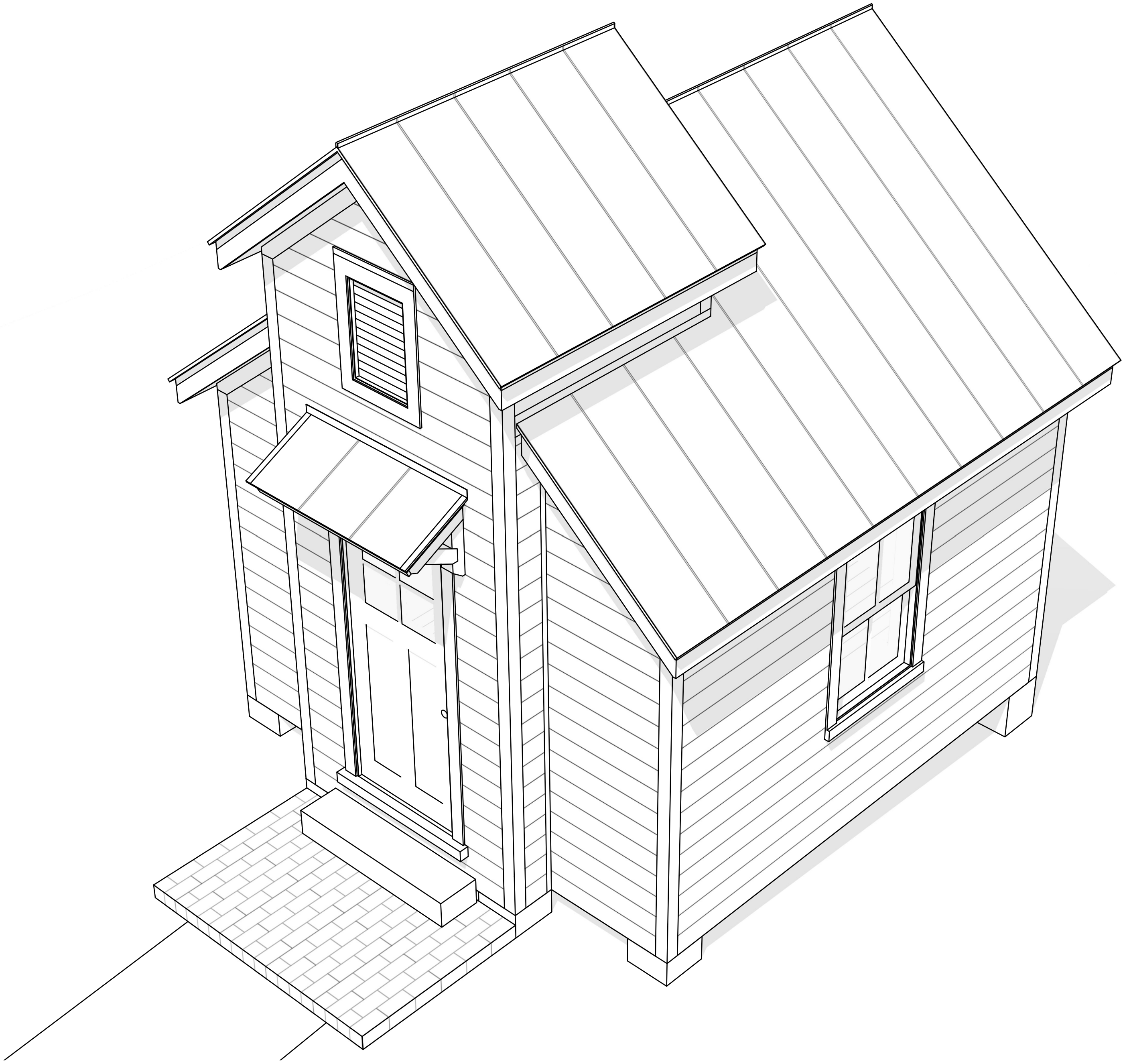


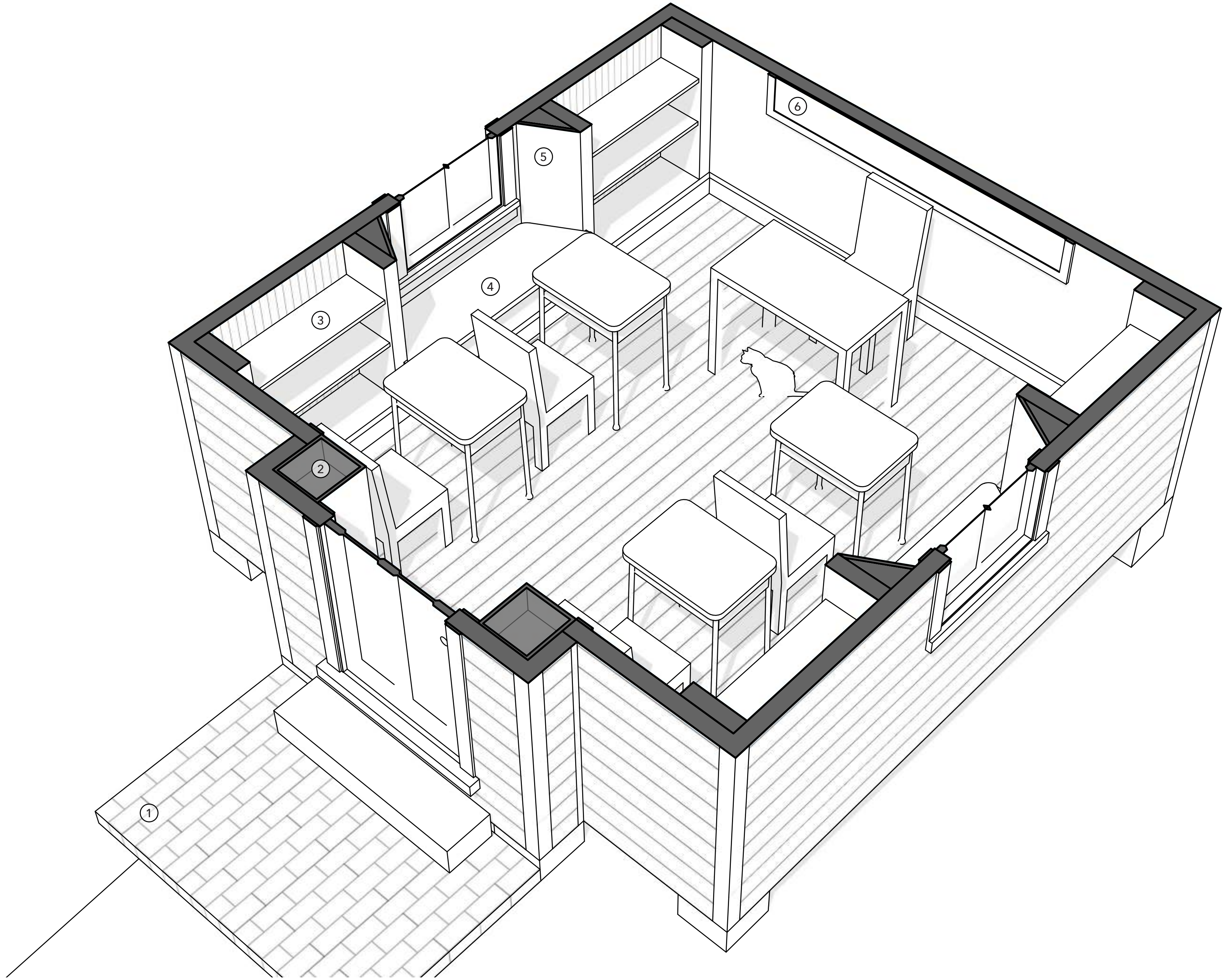
The Tiny Schoolhouse is for anybody who is learning how to build their dreams. Its open-source architectural plans are free to download, print, share, and modify. Jay Osborne created this design as a gift. He is inspired by architecture that has withstood the test of time. Jay believes that good ideas are better when shared. As Thomas Jefferson said, "A candle loses nothing when it lights another candle."

THE TINY SCHOOLHOUSE

PROJECT OVERVIEW

A DESIGN BY JAY OSBORNE

You may be inspired to use this design for another purpose. Its one-room design works well for many other uses. Though it's called a schoolhouse, it could also be a wedding chapel, a guest cottage, an office, an art studio, a chicken coop—whatever you like. All functional buildings must change their functions over time. So take notes. Draw yourself into this tiny world. And please share it with others.



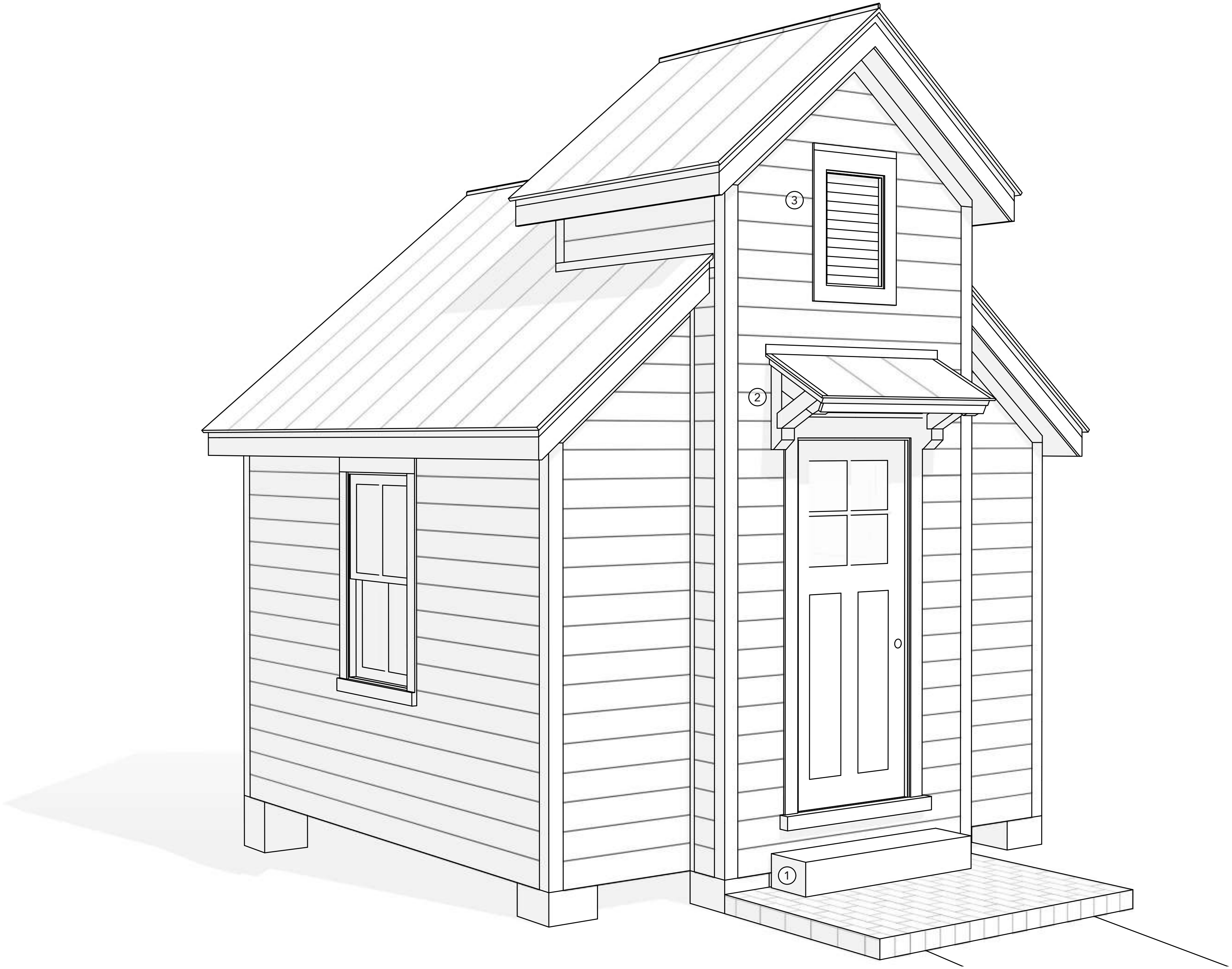
(1) All design templates must be adapted to a particular site. Landscape pavers are more adaptable than concrete sidewalks. **(2)** Wall cabinets enclose unsightly things like art supplies. Shoe cubbies, drawers, and coat hooks can be included. **(3)** Built-in shelves add visual depth to the walls, so they appear more massive. **(4)** The window seat can have a hinged top, so it can function as a storage chest.

THE TINY SCHOOLHOUSE

PLAN PERSPECTIVE

A DESIGN BY JAY OSBORNE

(5) The room has two windows on each side, to assist with cross breezes, and to soften any shadows using two balanced light sources. The flared openings at the windows also improve the quality of the daylighting. They reduce harsh edge contrasts between light and shadow. **(6)** This can be a chalkboard, or something more modern and practical, like a dry erase board and a roll-down screen above.



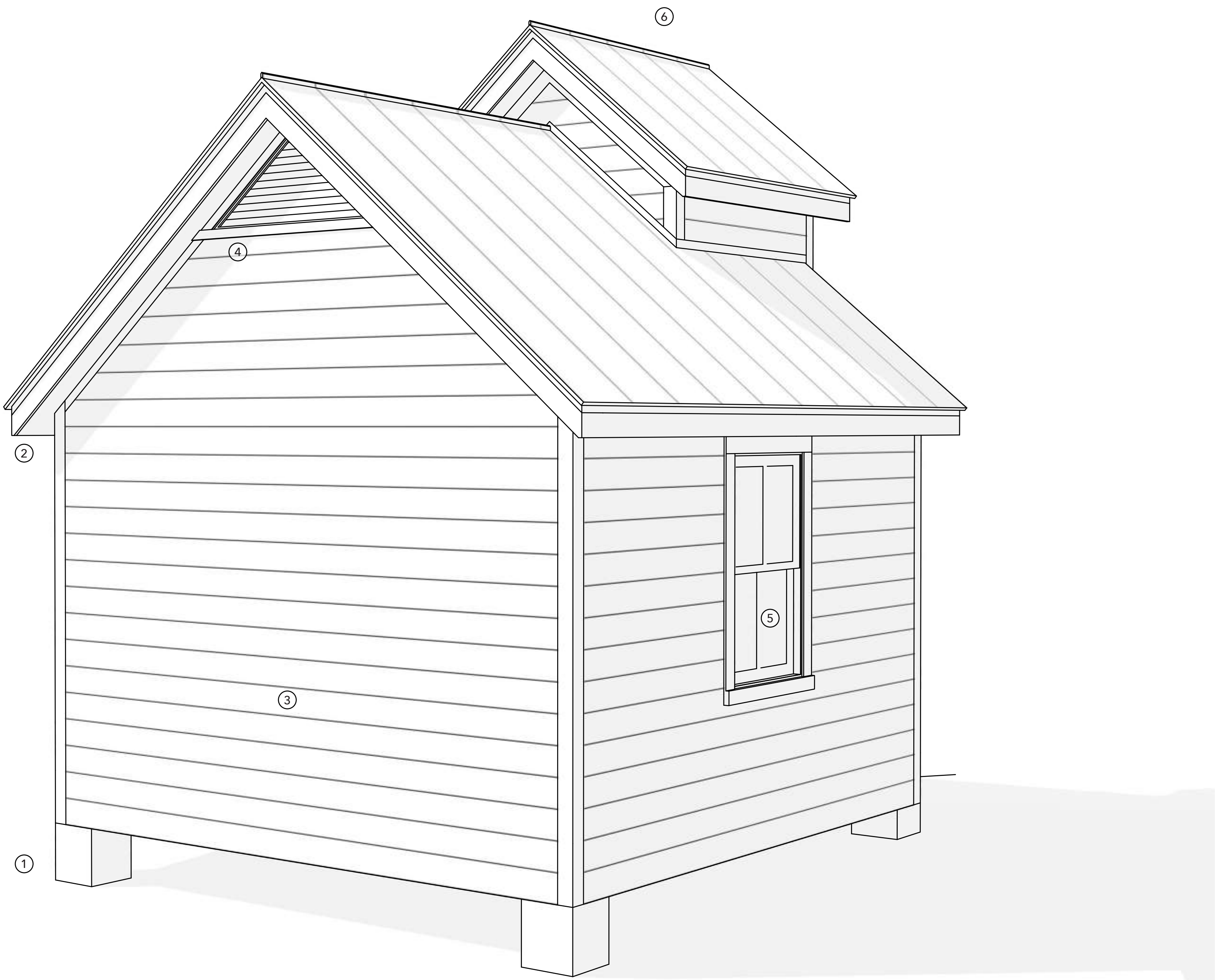
The materials are depicted here in a very simplified way. The default options are mentioned in the plans, as are alternatives for higher and lower budgets (as well as prohibitions against certain materials like vinyl siding). Though this presentation is plain, you can turn these images into a coloring book. Feel free to add some materiality, landscaping, or birds. Make these drawings your own.

THE TINY SCHOOLHOUSE

FRONT PERSPECTIVE

A DESIGN BY JAY OSBORNE

(1) The floor is close to the ground. If raised any higher, a platform would be needed outside for a landing. The step here can be made out of a shaped log, a couple of bolted railroad ties, or a block of stone. **(2)** The shed roof over the door will be very welcome on a rainy day. **(3)** If a bell were included, it would be centered on this attic vent, either directly inside or visible on the outside.



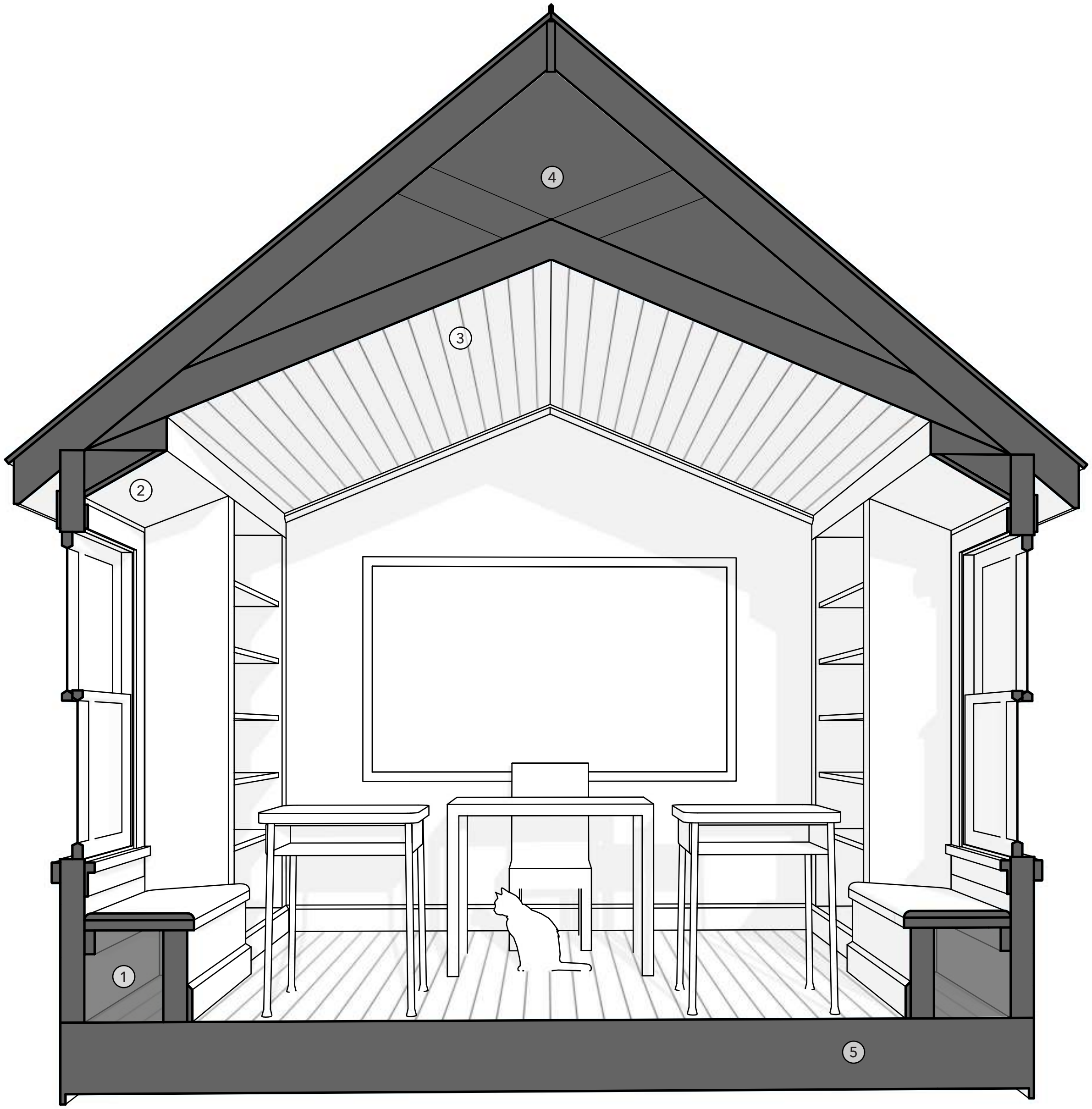
(1) The pier foundation makes it easy to work with a sloping site. It can be built simply out of reinforced concrete, or using bricks, as in old times. It might also be made from concrete with 1" thin brick tiles on it. **(2)** It seems simple, but builders often mess up eaves. Don't let them to make a "pork chop eave". If you want the charm of an old building, follow old traditions. **(3)** The back is plain and informal.

THE TINY SCHOOLHOUSE

FRAMING DIAGRAM

A DESIGN BY JAY OSBORNE

(4) The attic vents might be oversized for the space. If so, this one can be smaller. **(5)** The bottom sash of the window is directly centered with a seated eye level, so a curtain might be placed over half the window. The upper panes are at standing eye level. If you add shutters, make sure they're operable, not tack-on vinyl fakes. **(6)** A weathervane or steeple can be added atop the cupola, to brilliant effect.



(1) The window seat can also be a storage chest. **(2)** The angled window panels are fairly easy to build. The soffit can be insulated. **(3)** A "cathedral ceiling" sounds too grand for a small building, but it looks appropriate. It can be finished with painted beadboard or stained tongue and groove wood boards. In the middle, you could have a small chandelier, pendant light, or a ceiling fan.

THE TINY SCHOOLHOUSE

SECTION PERSPECTIVE

A DESIGN BY JAY OSBORNE

(4) The roof is constructed with ceiling joists and roof rafters, which are like a scissor truss when they are connected side by side. The shallower ceiling slope allows for space to insulate and ventilate the attic. Details depend on the climate. **(5)** Floor joists need insulation in between, with sheathing (like pressure-treated plywood) below. The floor also must be ventilated, probably with strip vents.

FOUNDATION PLAN NOTES

1. ALL FOUNDATION DESIGNS MUST BE ENGINEERED TO LOCAL CONDITIONS. THIS IS ONLY A TEMPLATE. MANY FACTORS MUST BE ADDRESSED FOR A FINISHED DESIGN, LIKE SOIL TYPE, SEISMIC CONCERNS, LOCAL BUILDING HEIGHT LIMITS, AND FLOODING ISSUES.

2. CRAWLSPACE MAY BE ENCLOSED WITH A WOOD LATTICE AND INSECT SCREEN.

3. ENSURE THAT WATER PROPERLY DRAINS AWAY FROM THE BUILDING.

4. ANCHOR BOLTS ARE NECESSARY TO KEEP THE WALLS ON THE FOUNDATION.

5. A SIMPLE CONCRETE FOUNDATION IS THE DEFAULT OPTION. IT MAY INSTEAD BE BUILT OF BRICK OR STONE, REINFORCED AS NECESSARY. OR INCLUDE A 1" THIN BRICK VENEER.

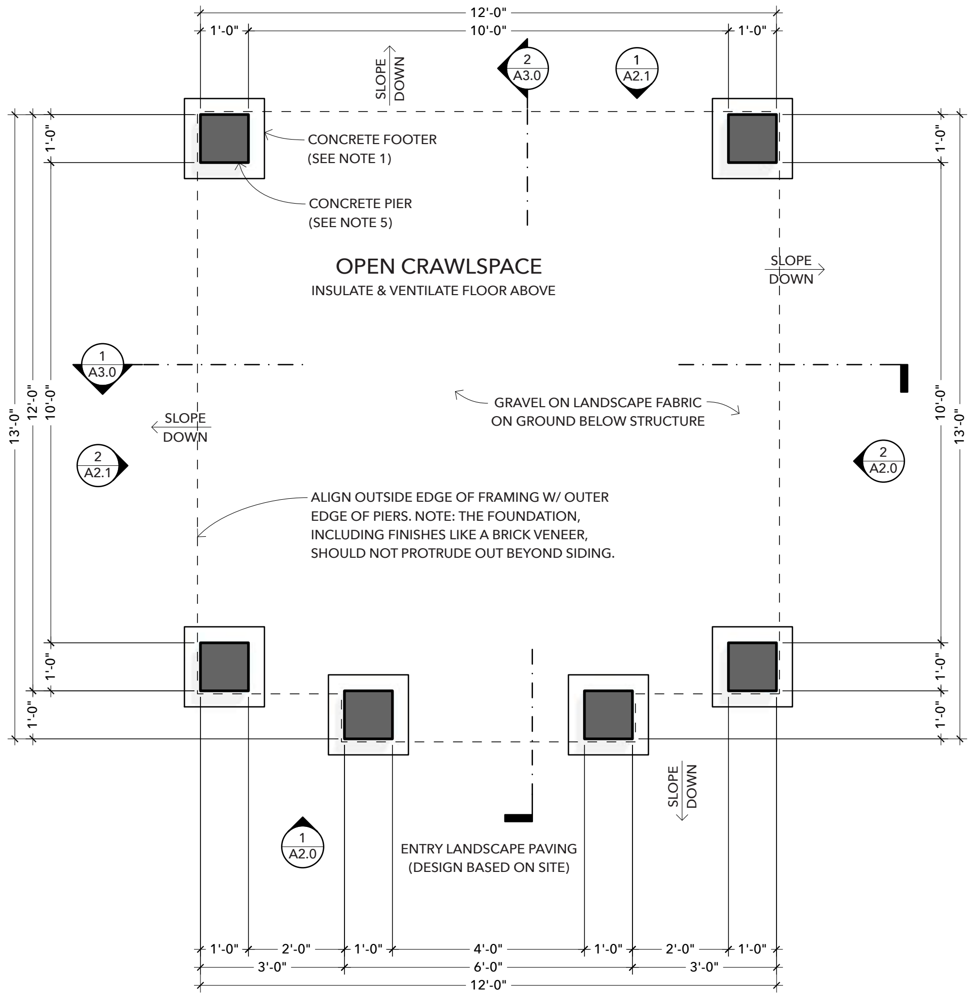
ROOF PLAN NOTES

1. **ROOFING MATERIALS:** STANDING SEAM METAL PANELS (16") ARE THE DEFAULT OPTION. IF BUDGET ALLOWS: USE WOOD SHINGLES OR SLATE. TO SAVE COSTS: USE 5V GALVALUME PANELS OR ROUND CORRUGATED STEEL. DON'T USE METAL PANELS WITH RECTANGULAR CORRUGATIONS (THEY HAVE A MODERN WAREHOUSE LOOK).

2. IF GUTTERS ARE NECESSARY, THEY SHOULD BE 4" OR 5" HALF-ROUND GUTTERS.

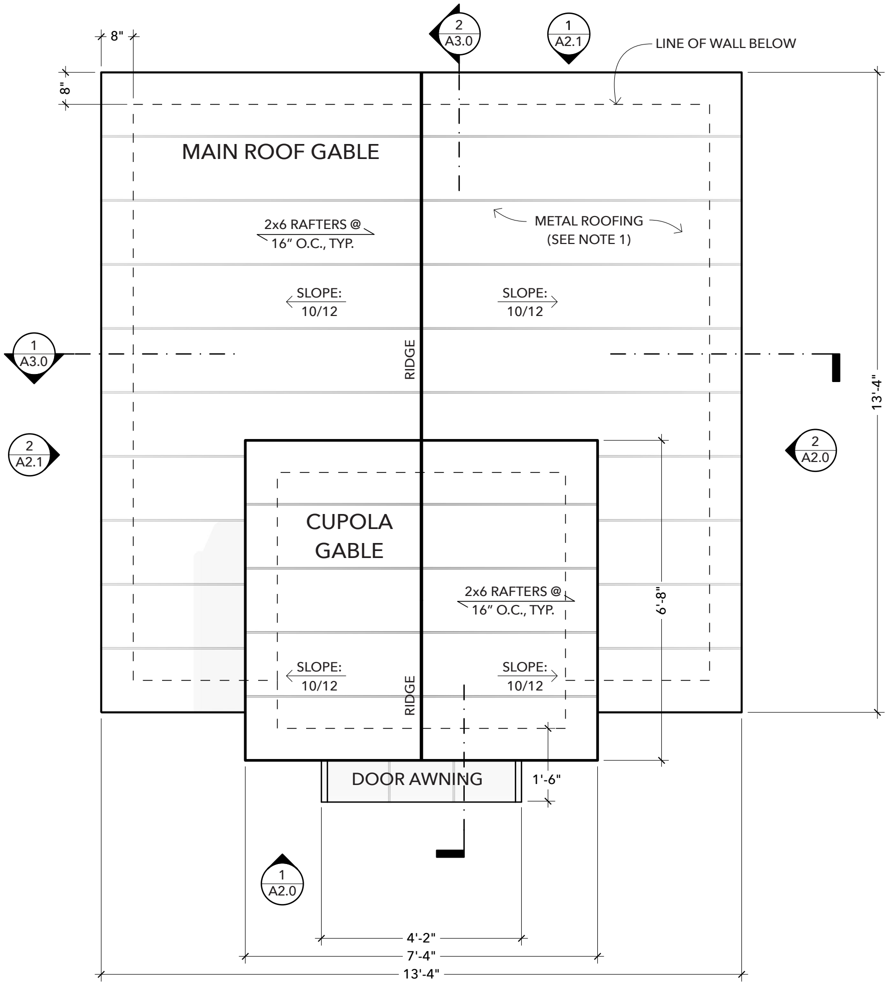
3. MAIN ROOF GABLE CAN BE CONSTRUCTED USING SCISSOR TRUSSES.

4. WALL FRAMING OF CUPOLA GABLE SITS ATOP THE SHEATHING OF THE MAIN ROOF. IT COULD INSTEAD BE FRAMED WITHIN A TRUSS SYSTEM.


12'-0"
1'-0"
10'-0"
1'-0"
SLOPE DOWN
2 A3.0
1 A2.1
CONCRETE FOOTER (SEE NOTE 1)
CONCRETE PIER (SEE NOTE 5)
OPEN CRAWLSPACE
INSULATE & VENTILATE FLOOR ABOVE
SLOPE DOWN
1 A3.0
GRAVEL ON LANDSCAPE FABRIC ON GROUND BELOW STRUCTURE
SLOPE DOWN
2 A2.1
2 A2.0
ALIGN OUTSIDE EDGE OF FRAMING W/ OUTER EDGE OF PIERS. NOTE: THE FOUNDATION, INCLUDING FINISHES LIKE A BRICK VENEER, SHOULD NOT PROTRUDE OUT BEYOND SIDING.
13'-0"
12'-0"
10'-0"
1'-0"
1'-0"
1'-0"
10'-0"
13'-0"
1'-0"
1'-0"
SLOPE DOWN
1 A2.0
ENTRY LANDSCAPE PAVING (DESIGN BASED ON SITE)
1'-0"
2'-0"
1'-0"
4'-0"
1'-0"
2'-0"
1'-0"
3'-0"
6'-0"
3'-0"
12'-0"

① FOUNDATION PLAN

SCALE: 1/4" = 1'-0"



② ROOF PLAN

SCALE: 1/4" = 1'-0"

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TINY SCHOOLHOUSE

A GIFT FOR ALL TEACHERS & LEARNERS

2 **2023-09-08** 1ST RELEASE (PLANS & RENDERINGS)
1 **2023-07-13** CONCEPT PLAN & ELEVATION SKETCH

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FOUNDATION PLAN & ROOF PLAN

A1.0

FLOOR PLAN NOTES:

1. FLARING WALL PANELS AT WINDOW MAY BE REMOVED IF DESIRED. THEY MAKE THE WALLS APPEAR MORE SUBSTANTIAL, AND SOFTEN THE EDGE GLARE OF DAYLIGHT.

2. WALL CABINETS AT DOOR CAN INCLUDE DRAWERS, COAT HOOKS INSIDE,OR SHOE CUBBIES. THEY CAN BE MADE INEXPENSIVE, LIKE IKEA KITCHEN CABINETS. OR CUSTOM-BUILT WITH THE FINEST WOOD PANELING.

3. DIMENSIONS ARE TO FRAMING. WALL SURFACES SHOULD HAVE A MINIMUM 0.5" THICK PANELING. PAINT-GRADE WOOD PANELING MAY BE USED AROUND THE WINDOWS AND SHELVES. BEADBOARD, TONGUE AND GROOVE BOARDS, OR GYPSUM WALLBOARD MAY BE USED ELSEWHERE. OUTSIDE SHEATHING TO BE .5" OSB OR PLYWOOD, OR A ZIP SYSTEM. RECOMMENDED: A RAINSCREEN SYSTEM OF VERTICAL 1x4 PURLINS BETWEEN THE WEATHER-RESISTIVE BARRIER AND THE FINISH SIDING.

REFLECTED CEILING PLAN / ELECTRICAL PLAN NOTES

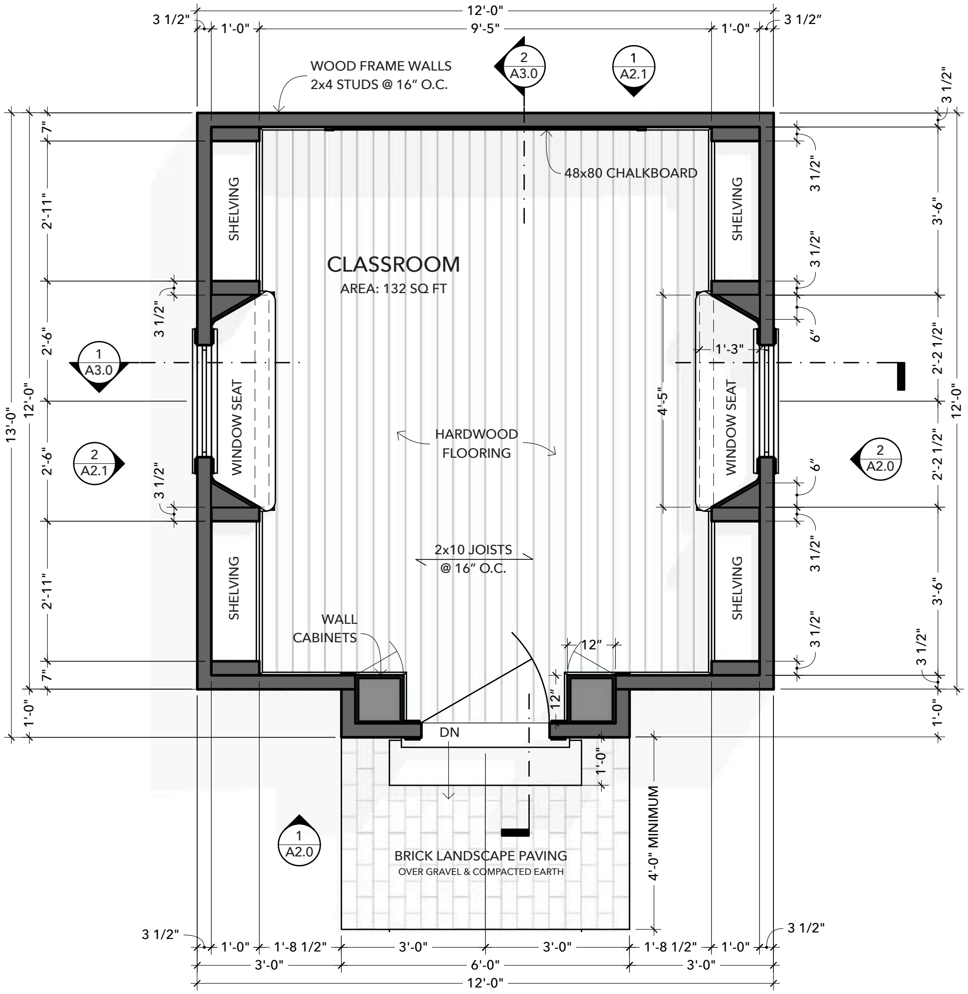
1. CENTER THE ELECTRICAL FIXTURES ON SURFACES, AND WITH PRIMARY FEATURES.

2. CENTRAL LIGHT FIXTURE CAN BE A PENDANT LIGHT, CEILING FAN WITH PENDANTS, OR A ROUND CHANDELIER, AS SHOWN IN THESE DRAWINGS. BASE OPTION (DEFAULT): CALVIN 10-LIGHT DIMMABLE WAGON WHEEL CHANDELIER. BUT ANTIQUE IS PREFERRED.

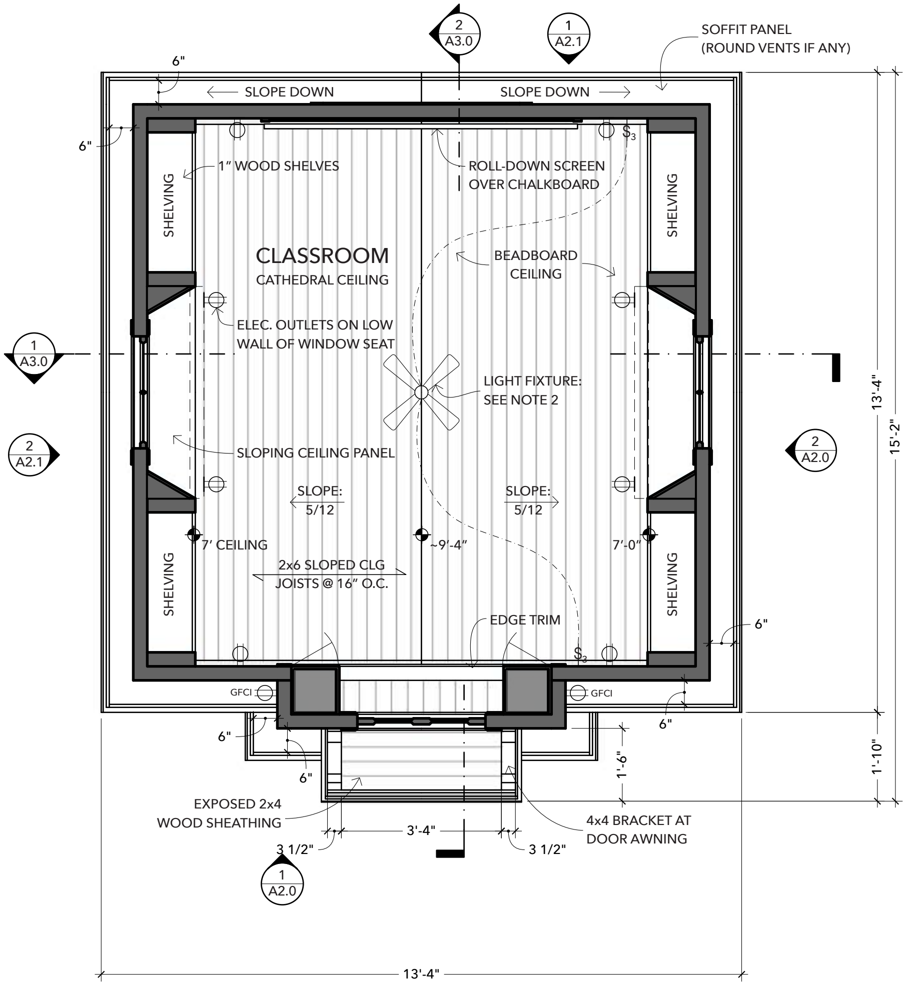
3. SLOPING CEILING PANEL ABOVE THE WINDOW MAY BE REMOVED TO SAVE COSTS.

4. LED STRIP LIGHTING MAY BE USED AT SHELVING. TO FACILITATE THAT AS A FUTURE PROJECT, SOME WALL OUTLETS MIGHT BE PLACED IN THE SHELVING RECESSES.

5. OUTLETS OUTSIDE DOOR ARE FOR CHRISTMAS LIGHTS AND OUTDOOR ACTIVITIES.



① FLOOR PLAN
SCALE: 1/4" = 1'-0"



② REFLECTED CEILING PLAN / ELECTRICAL
SCALE: 1/4" = 1'-0"

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FLOOR PLAN &
CEILING PLAN

A1.1

ELEVATION NOTES

1. BUILDING HEIGHTS ARE MEASURED IN MANY WAYS. HEIGHT LIMITS USUALLY HAVE EXCEPTIONS FOR STEEP PITCHES, CUPOLAS, AND STEEPLES.

2. ALL STRUCTURES MUST BE CUSTOMIZED TO LOCAL CONDITIONS & REGULATIONS. THIS IS ONLY A TEMPLATE.

3. **FOUNDATION**: 12x12 CONCRETE PIERS OR REINFORCED BRICK W/ ANCHOR BOLT. OPTION: 1" THIN BRICK VENEER OVER 10x10 PIERS. FOUNDATION SHOULD NOT PROTRUDE OUT BEYOND SIDING MATERIALS. NO "FAKE BRICK" CONCRETE MOLDS.

4. **DOOR**: 32x80 SOLID WOOD WITH 2 INSET PANELS AND 2/2 TRUE DIVIDED LITES. MARVIN ULTIMATE SERIES IS RECOMMENDED. ANTIQUE PREFERRED. TRIM: SOLID WOOD OR FIBER CEMENT: 1x4 SIDE, 2x6 UPPER (W/ EXPOSED FLASHING), 3" SILL.

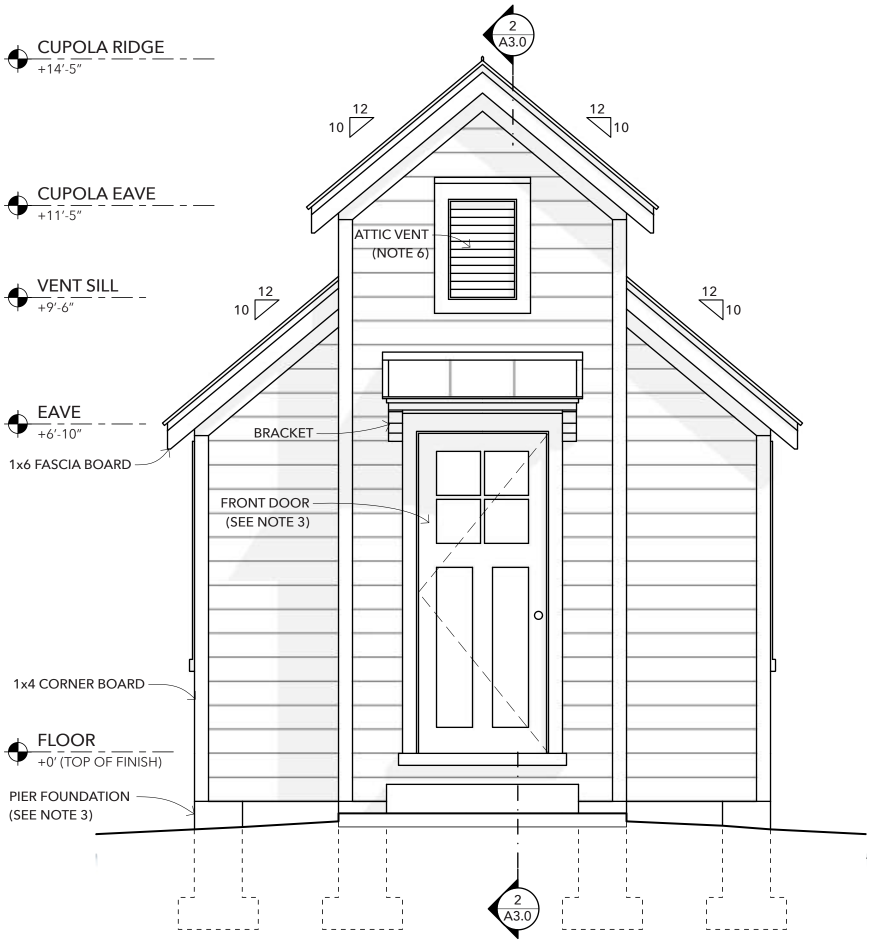
5. **WINDOWS:** 28x48 DOUBLE HUNG W/ 2/2 DIVIDED LITES, MARVIN ULTIMATE SERIES, OR ANTIQUE. TRIM: SOLID WOOD OR FIBER CEMENT: 1x4 SIDE, 2x6 UPPER, 3x3 SILL.

6. **VENT:** 16x24 LOUVERED WOOD OR FIBER CEMENT, 1x4 SIDE TRIM, 1X6 TOP, 3" SILL

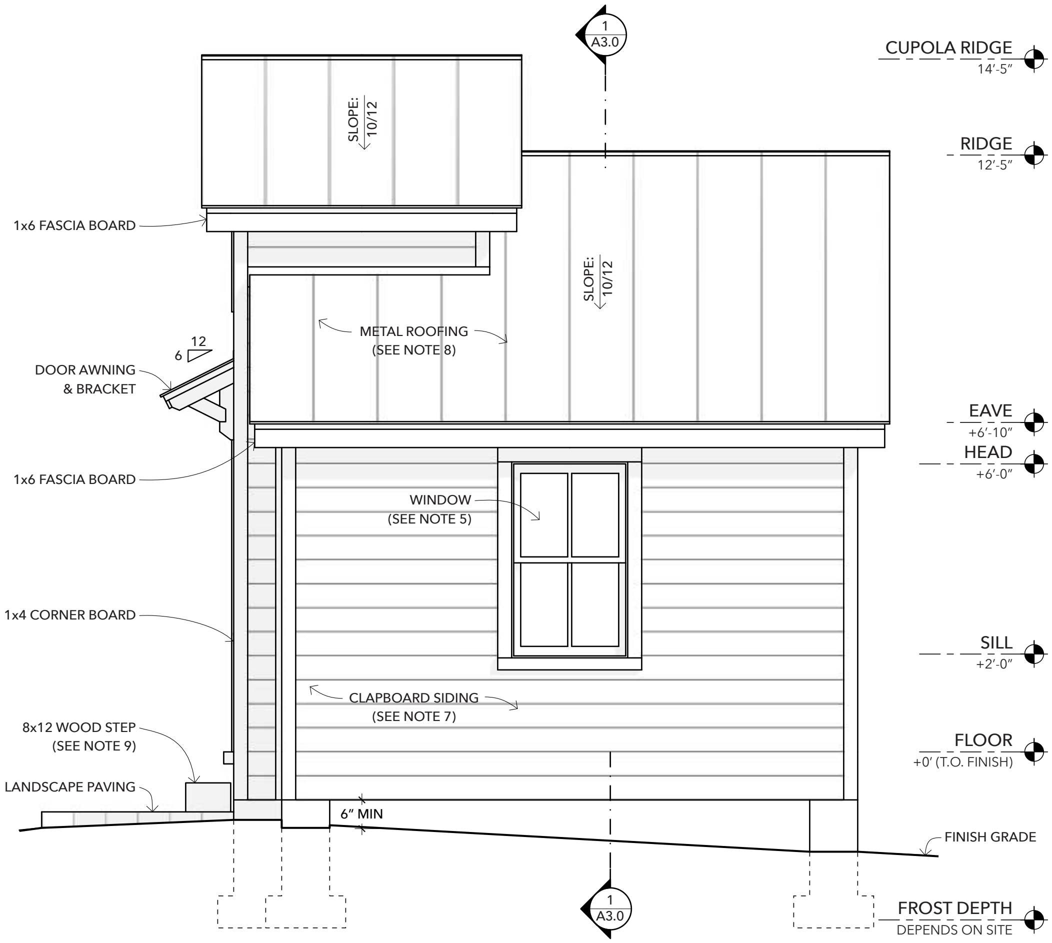
7. **SIDING:** 4-6" FIBER CEMENT CLAPBOARD. JAMES HARDIE: ARTISAN SERIES. WOOD IS PREFERRED IF BUDGET ALLOWS. OPTIONAL: UNPAINTED. OTHER OPTIONS: WOOD SHINGLES OR BOARD & BATTEN SIDING. BUT THOU SHALT NOT USE VINYL SIDING.

8. **ROOFING:** STANDING SEAM METAL PANELS (16"). IF BUDGET ALLOWS: WOOD SHINGLES OR SLATE. TO SAVE COSTS: USE 5V GALVALUME PANELS OR ROUND CORRUGATED STEEL. DON'T USE METAL PANELS WITH SQUARE-ISH CORRUGATIONS.

9. AT FRONT STEP, ONLY TWO RISERS ALLOWED (7.75" MAX EACH, 15.5" MAX TOTAL, 10" MIN TREAD). MADE OF EITHER BRICK, ROT-RESISTANT WOOD, OR A LARGE STONE.



① FRONT ELEVATION
SCALE: 1/4" = 1'-0"



② RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

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**FRONT & SIDE
ELEVATIONS**

A2.0

ELEVATION NOTES

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2. ALL STRUCTURES MUST BE CUSTOMIZED TO LOCAL CONDITIONS. THIS IS ONLY A TEMPLATE.

3. **FOUNDATION**: 12x12 CONCRETE PIERS OR REINFORCED BRICK W/ ANCHOR BOLT. OPTION: 1" THIN BRICK VENEER OVER 10x10 PIERS. FOUNDATION SHOULD NOT PROTRUDE OUT BEYOND SIDING MATERIALS. NO "FAKE BRICK" CONCRETE MOLDS.

4. **DOOR**: 32x80 SOLID WOOD WITH 2 INSET PANELS AND 2/2 TRUE DIVIDED LITES. MARVIN ULTIMATE SERIES IS RECOMMENDED. ANTIQUE PREFERRED. TRIM: SOLID WOOD OR FIBER CEMENT: 1x4 SIDE, 2x6 UPPER (W/ EXPOSED FLASHING), 3" SILL.

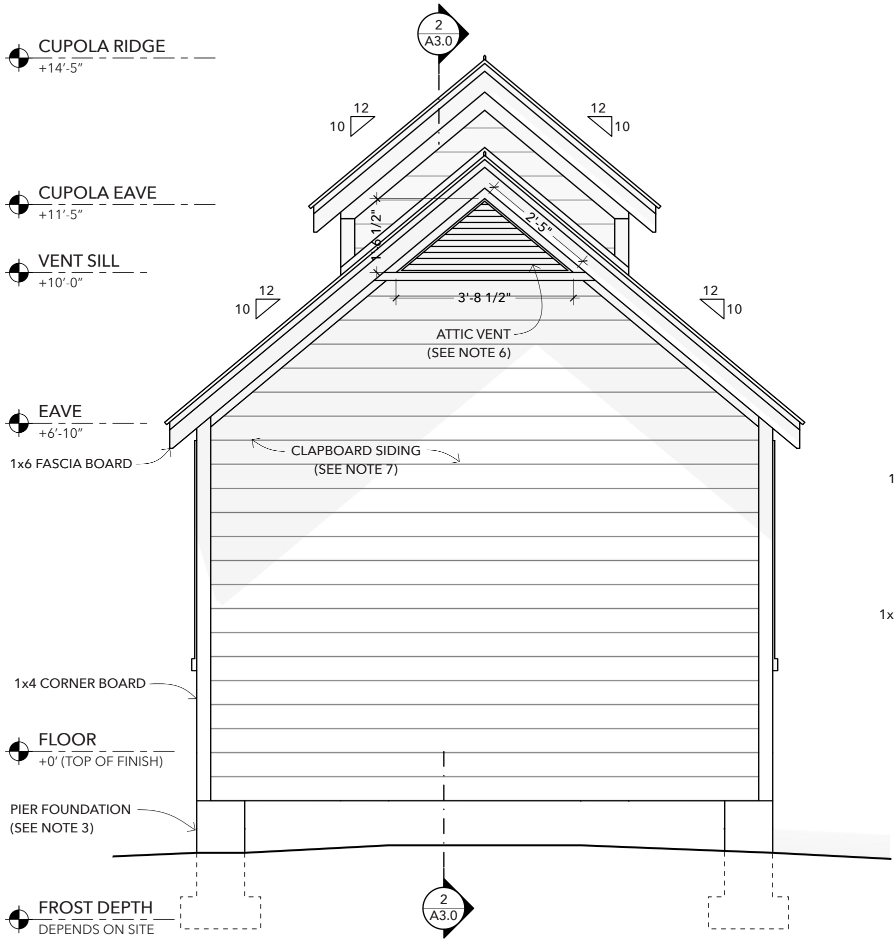
5. **WINDOWS:** 28x48 DOUBLE HUNG W/ 2/2 DIVIDED LITES, MARVIN ULTIMATE SERIES, OR ANTIQUE. TRIM: SOLID WOOD OR FIBER CEMENT: 1x4 SIDE, 2x6 UPPER, 3" SILL.

6. **VENT:** TRIANGULAR GABLE VENT: 44" HORIZ, 18.5 VERT, 10/12 SLOPES. LOUVERED WOOD OR FIBER CEMENT, TRIM TO MATCH SOFFIT AT RAKING EAVE.

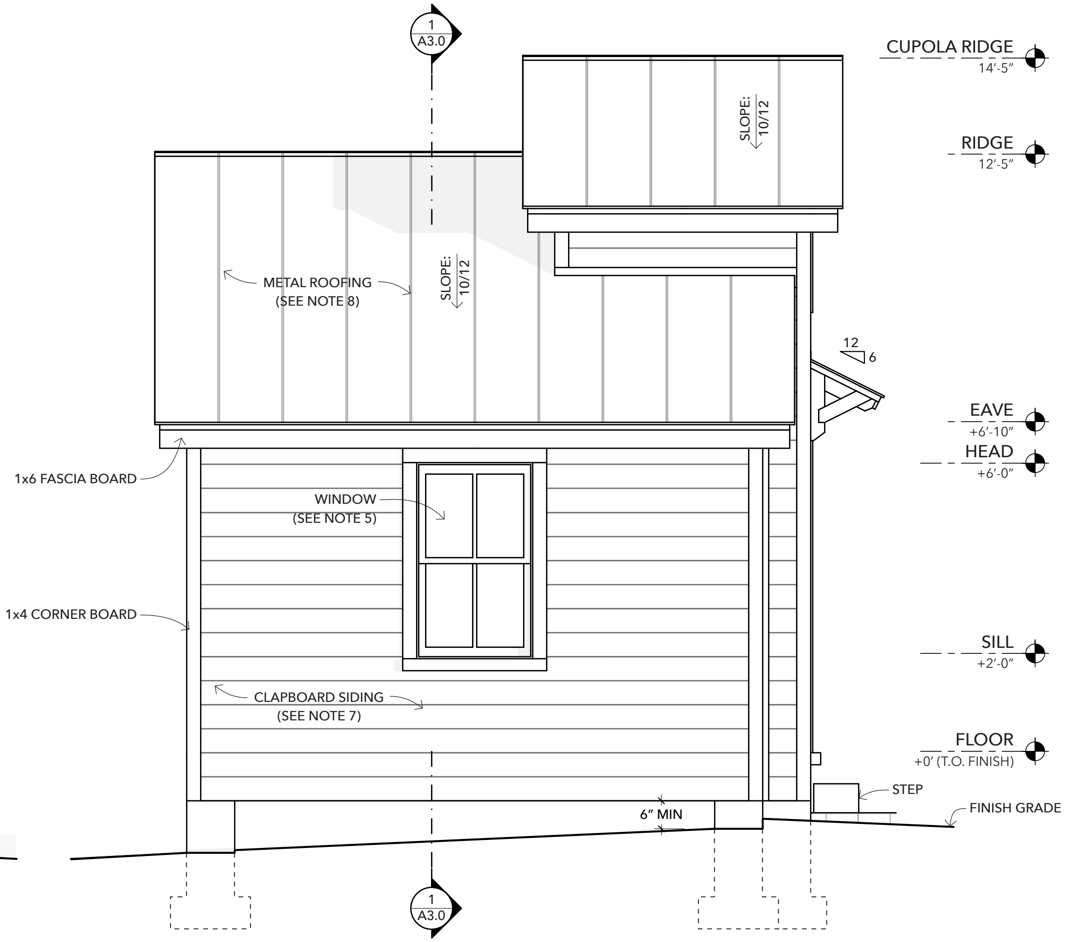
7. **SIDING:** 4-6" FIBER CEMENT CLAPBOARD. JAMES HARDIE: ARTISAN SERIES. WOOD IS PREFERRED IF BUDGET ALLOWS. OPTIONAL: UNPAINTED. OTHER OPTIONS: WOOD SHINGLES OR BOARD & BATTEN SIDING. BUT THOU SHALT NOT USE VINYL SIDING.

8. **ROOFING:** STANDING SEAM METAL PANELS (16"). IF BUDGET ALLOWS: WOOD SHINGLES OR SLATE. TO SAVE COSTS: USE 5V GALVALUME PANELS OR ROUND CORRUGATED STEEL. DON'T USE METAL PANELS WITH SQUARE-ISH CORRUGATIONS.

9. DO NOT "PORK CHOP" ANY OF THE ROOF EAVES.



① REAR ELEVATION
SCALE: 1/4" = 1'-0"



② LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

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REAR & SIDE ELEVATIONS

A2.1

SECTION NOTES

1. DATUMS ARE TO FINISH FLOOR. BUILDING HEIGHTS ARE OFTEN MEASURED TO GRADE. THEREFORE, THIS DESIGN WORKS WITH AN 16 FOOT HEIGHT RESTRICTION (GABLE AVERAGE) OR A 20 FOOT HEIGHT RESTRICTION (ROOF RIDGE TO GRADE).

2. INSULATE AND VENTILATE THE FLOOR. INCLUDE SHEATHING BELOW THE JOISTS.

3. WALL FRAMING OF CUPOLA SITS ATOP THE SHEATHING OF THE MAIN ROOF. IT COULD INSTEAD BE FRAMED WITHIN A TRUSS SYSTEM.

4. SPACE ABOVE DOOR COULD BE USED FOR AN AIR HANDLING UNIT OF A DUCTLESS MINI SPLIT SYSTEM, BUT HVAC SYSTEMS ARE TO BE DONE ON DESIGN-BUILD BASIS.

5. SHELVES CAN BE ADJUSTABLE, OR SIT ON 1" CAVETTO LEDGES. MINIMUM .75" FOR WOOD SHELVES, IF EDGES REINFORCED. OPTIONAL: 2x12 LUMBER FOR RUSTIC LOOK.

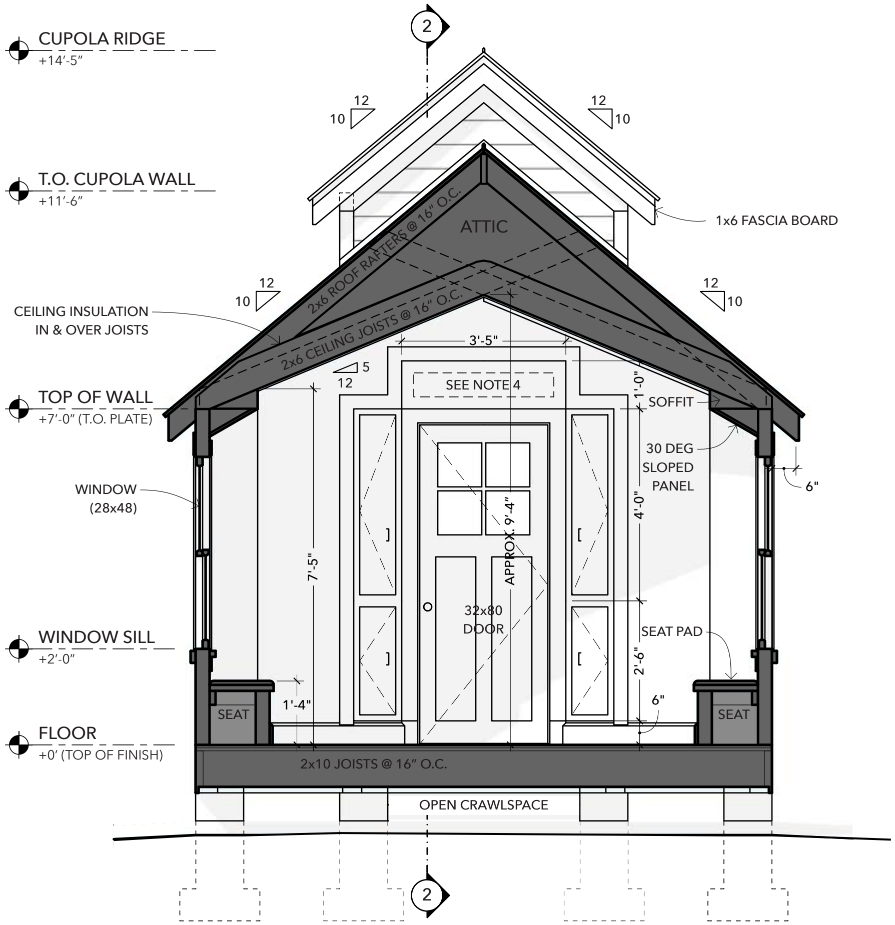
7. DO NOT "PORK CHOP"ANY OF THE ROOF EAVES. ONLY ROUND EAVE VENTS IF ANY. EAVES CAN BE LEFT OPEN IF T&G BOARD SHEATHING IS USED AT ROOF OVERHANG.

8. FLARED WALLS AROUND WINDOWS ARE BUILT USING BOARDS OVER BLOCKING. USE BOARDS AT LEAST .75" THICK WITH ADEQUATE BLOCKING, TO AVOID A HOLLOW THUMPING SOUND AT THESE WALLS. GYPSUM WALLBOARD COULD ALSO BE USED.

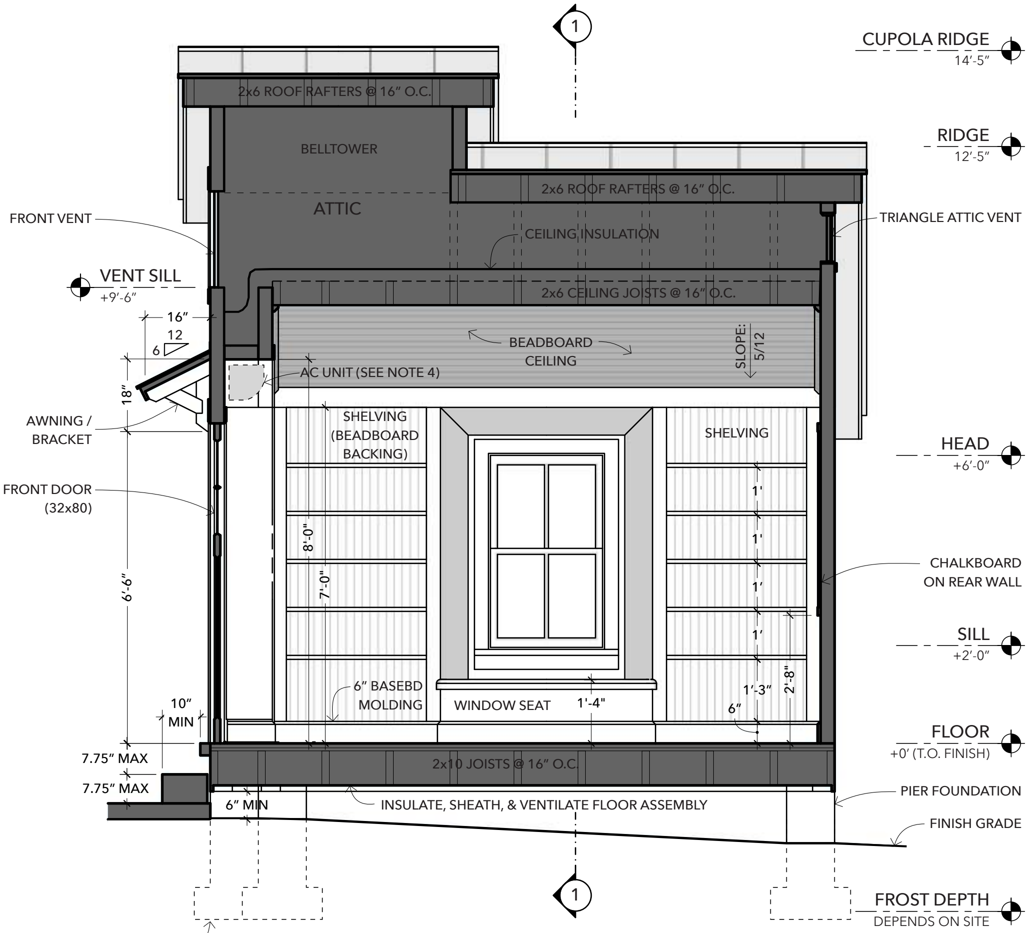
9. BUILT-IN WINDOW SEAT CAN HAVE AN ACCESS HATCH BELOW THE CUSHION, SO IT CAN ALSO FUNCTION AS A STORAGE CHEST.

10. INCLUDE 1" AIR GAP (USE BAFFLE) BETWEEN INSULATION AND ROOF SHEATHING.

11. BELL CAN BE INCLUDED INSIDE THE ATTIC, OR DIRECTLY OUTSIDE THE ATTIC VENT. CENTER THE BELL ON THE VENT.



① TRANSVERSE SECTION
SCALE: 1/4" = 1'-0"



② LONGITUDINAL SECTION
SCALE: 1/4" = 1'-0"

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SECTION VIEWS

A3.0